

1 network elements in Virginia, may both substantially change the amount of guidance
2 available to Verizon and Cavalier in trying to agree upon applicable rates and charges.

3 **Q. Does Cavalier propose its own prices, or propose to establish prices different**
4 **from Verizon's non-recurring and recurring charges?**

5 A. No. Cavalier does not have the sufficient information or resources to develop
6 such prices. Cavalier would simply like to establish some straightforward and fair ways
7 of applying any prices established by the federal or state commissions.

8 **Q. Does that conclude your testimony?**

9 A. Yes.

Declaration of F. Chad Edwards

I declare under penalty of perjury that I have reviewed the foregoing testimony and that those sections as to which I testified are true and correct to the best of my knowledge.

Executed this 22 day of September, 2003.



F. Chad Edwards

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Petition of Cavalier Telephone, LLC)	WC Docket No. 02-359
Pursuant to Section 252(e)(5) of the)	
Communications Act for Preemption)	
of the Jurisdiction of the Virginia State)	
Corporation Commission Regarding)	
Interconnection Disputes with Verizon)	
Virginia, Inc. and for Arbitration)	

**TESTIMONY OF JAMES E. VERMEULEN
ON BEHALF OF CAVALIER TELEPHONE, LLC**

CAVALIER EXHIBIT ____

September 23, 2003

1 **Q. Please state your name, business address, responsibilities, and professional**
2 **background.**

3 A. My name is James E. Vermeulen and my business address is 18 Shea Way,
4 Newark, Delaware 19713. As Director of Engineering for Cavalier Telephone Mid-
5 Atlantic, LLC, a subsidiary of Cavalier Telephone, LLC (“Cavalier”), I am responsible
6 for overseeing the design and implementation of the Cavalier network in Delaware and
7 other states. Before joining Cavalier, I was director of operations and engineering for
8 Conectiv Communications Inc. for approximately four years. Before working for
9 Conectiv, I spent five years as a project manager for U.S. West Communications, Federal
10 Services, and 3 years as a technician for Interwest Telecom Services, both of which were
11 located in Richland, Washington. I have a two-year technical degree from the J.M. Perry
12 Technical Institute in telecommunications technology.

13 **Q. What issues will your direct testimony address?**

14 A. It will address the issues designated as C9 and C14.

15 **DSL**

16 **Q. What changes does Cavalier propose concerning Issue C9?**

17 A. Cavalier proposes to resolve several issues that have affected its offering of digital
18 subscriber line (“DSL”) services over the past four years. I will address one of them—
19 the application of spectral density mask limitations on a form of DSL service offered by
20 Cavalier that does not raise the same types of interference concerns as other types of DSL
21 service offered by Verizon and other carriers.

22 **Q. What specific language does Cavalier propose with respect to spectral**
23 **density masks and binder group limitations?**

1 A. Cavalier has proposed several changes to the language in §§ 11.2.1 through
2 11.2.12 of the interconnection agreement. First, Cavalier suggested changes to §§ 11.2.4
3 to 11.2.6, from an absolute requirement that Cavalier meet Verizon's own internally
4 developed spectral density mask and power limits to a requirement that Verizon advise
5 Cavalier whether these requirements are met. What Cavalier has tried to do is shift these
6 requirements from an arbitrary limit set by Verizon to a more cooperative arrangement.
7 Second, Cavalier has tried to make similar modifications to §§ 11.2.7 and 11.2.8, to allow
8 for a less restrictive or confining definition of the types of loops offered, and to allow for
9 at least the possibility of Verizon building new copper loops. Third, Cavalier has added
10 new § 11.2.8(a), to provide for a loop that is compatible with the multiple virtual lines
11 ("MVL") or "ReachDSL" products offered by Cavalier. These DSL services operate at
12 25-80 kHz, and will function up to 28,000 or 30,000 feet on a non-loaded loop with
13 minimal bridged taps, without interfering with voice transmissions.

14 IDLC

15 **Q. Has Verizon prevented Cavalier from offering services on the grounds that**
16 **there are "no facilities" available to serve the customer?**

17 A. Yes. This issue arises with unbundled DS0 loops in the context of Integrated
18 Digital Loop Carrier ("IDLC") systems. A traditional copper loop is an end-to-end
19 physical connection between a Verizon end office and a customer. Cavalier can obtain
20 such loops, cross-connect them to collocated equipment, and serve the customer. IDLC
21 systems multiplex a number of connections to customers on common facilities from the
22 end office to a location in a neighborhood near customers. If Verizon serves a customer
23 using an IDLC system, and it cannot locate a spare copper loop or a loop served over

1 universal digital loop carrier (“UDLC”), Verizon claims that there are “no facilities”
2 available to Cavalier to allow Cavalier to serve that customer. As a result, if Verizon
3 serves a customer by IDLC, the customer will have little chance to switch to Cavalier as
4 that customer’s carrier of choice. Even if Verizon does provide Cavalier with a way to
5 serve such a customer, it is by means that lead to noticeably inferior services compared to
6 those that Verizon provides to that same customer serviced over IDLC.

7 Cavalier has proposed a trial to solve this problem, with a slightly different
8 solution for cases where there are only a few IDLC loops in an office, and cases where
9 there are many. Both solutions are workable and would facilitate competition for
10 residential customers—a focus of Cavalier’s business.

11 **Q. How pervasive are IDLC-related problems?**

12 A. Every day, Cavalier is forced to void, or cancel, customer orders due to a “no
13 facilities” determination by Verizon related to the IDLC situation. Cavalier routinely
14 cancels hundreds of such orders monthly.

15 **Q. Does Cavalier cancel orders for reasons, too?**

16 A. Yes, but Cavalier specifically tracks of orders cancelled for “no copper.” Also, in
17 many cases, a number of loops and lines are delayed or cancelled because Verizon does
18 not make its “no facilities” determination until the very day that the service is scheduled
19 for installation. When Verizon informs Cavalier on the installation date that there are “no
20 facilities,” Verizon guarantees maximum disruption to the customer, and Cavalier’s
21 reputation, and its ability to deliver the product it promises to deliver, are both seriously
22 undermined. Cavalier has experienced this unfortunate reality in thousands of orders in
23 Virginia.

1 **Q. How does the IDLC issue affect Cavalier’s ability to serve customers?**

2 A. Customers call Cavalier in good faith trying to request service. Cavalier
3 processes orders in good faith on behalf of the customer, only to find later that the orders
4 cannot be processed. Cavalier then has to call the customer back and inform them that its
5 service is unavailable. To put it bluntly, Cavalier looks downright stupid for taking a
6 customer’s order, processing the order, and then calling the customer back at or near the
7 time the customer expects service only to say “sorry, but the systems do not allow us to
8 provide you service.” When this happens, the customer loses confidence with Cavalier,
9 and a diminished reputation is passed along. This problem is compounded by the fact
10 that Verizon will not tell Cavalier at the time the order is placed, in real time, whether or
11 not the order can be provisioned. Cavalier does not have direct access to this
12 information, and the uncertainty caused by Verizon’s processes undermines Cavalier’s
13 efforts to instill confidence in its customers.

14 **Q. Does Verizon treat its own customers this way?**

15 A. No. Verizon does not encounter an IDLC problem with its own customers.
16 Rather, Verizon simply provides service to customers who request it, and it does so in a
17 matter of days. If facilities are not available, then Verizon builds facilities at no
18 additional charge. Cavalier believes that, in almost all cases, Verizon actually waives any
19 extra installation charges, and so favors its own retail operations. Neither the
20 discriminatory “no facilities” policy, nor the suspected further waiver of construction
21 charges for Verizon’s own retail operations, makes for nondiscriminatory access to
22 customers.

23 **Q. How pervasive is the IDLC problem in Virginia?**

1 **A.** Based on testimony in a prior proceeding, it appears that over 22% of Verizon's
2 loops in Virginia are served on IDLC, but this percentage may vary widely among
3 different central offices or wire centers. A drive around a new subdivision will readily
4 demonstrate the prevalence of IDLC vaults. Given the fact that IDLC will likely be in
5 place for all the homes in any new subdivision, it is likely that virtually all of these
6 potential customers will be locked out of choosing Cavalier's service.

7 **Q.** **Has Cavalier tried to talk to Verizon about this issue?**

8 **A.** Yes. In July 2000, Cavalier representatives met with Don Albert from Verizon to
9 discuss the problem. Verizon acknowledged that the "hairpin" solution was technically
10 possible, but claimed that legacy operational systems were not developed to support it.
11 Therefore, their conclusion was that it was not cost-justifiable.

12 **Q.** **Do you agree with Verizon's position?**

13 **A.** No. Cavalier not only disagrees, but has told Verizon that another incumbent,
14 BellSouth, provides a Florida competitor, Florida Digital Network, with access to IDLC
15 loops using several methods of unbundling. In addition, Cavalier has trialed multiple
16 switch hosting to it's own IDLC equipment. In one example, Cavalier used a Fujitsu
17 IDLC subtended by a Cavalier DMS 500 switch and a Cavalier Lucent 5ESS switch
18 concurrently with minimal effort. That allowed Cavalier to port numbers between the
19 switches in the same manner as a number would be ported from a Verizon switch to a
20 Cavalier switch. Cavalier picked this configuration because it involved multiple
21 equipment vendors. It was quickly and easily accomplished.

22 **Q.** **Did that trial show that it is technically feasible to serve customers on IDLC**
23 **loops through multiple switch hosting?**

1 A. Yes. That is why Cavalier proposes language in § 11.4 of the interconnection
2 agreement that would require a trial with Verizon to examine technically feasible
3 methods to unbundle loops to customers served by IDLC.

4 **Q. Does Verizon have a response to this problem?**

5 A. Verizon proposes only generic language that would require Verizon to provide
6 access as required by Verizon's legal obligations. However, Verizon seems to believe
7 that its prior policies met that standard, while Cavalier would disagree. Cavalier
8 therefore proposed very specific language to require a trial of the methods that Cavalier
9 believes Verizon should use.

10 **Q. If Cavalier runs into an IDLC situation, are all orders in that area cancelled?**

11 A. Yes, generally. Sometimes, Verizon provides access through a UDLC, but that
12 method often raises another problem, because UDLC involves additional analog-to-
13 digital or digital-to-analog conversions. Those additional signal conversions generally
14 cut dial-up modem speed in half, which in turn cuts the speed of dial-up Internet access in
15 half. These customers often leave Cavalier after briefly sticking their toes in the
16 competitive waters, and Verizon will even leave them stranded on UDLC if they return to
17 Verizon's service, which further poisons their views on the potential benefits of
18 competitive telephone service.

19 **Q. Does Verizon provide access to all IDLC-affected customers through UDLC?**

20 A. No. I expect that Verizon would claim that using UDLC entails a manual
21 intervention, with manual wiring, which raises costs, so that it would be too expensive to
22 provision all customers that way. In reality, however, Verizon would be compensated for
23 such costs through the Virginia State Corporation Commission's establishment of prices

1 based on a TELRIC model that compensates Verizon for each loop as if Verizon had to
2 construct an entire network, as opposed to varying compensation for individual loops
3 depending upon whether Verizon long ago recovered all costs or whether it must perform
4 some work to provide access. Even if Verizon did not make such a claim, UDLC has its
5 own problems. The net result is that Cavalier never knows for certain when it can
6 provide service, and if it can, whether some portion of service will be degraded.

7 **Q. Do customers have any other options?**

8 A. Sometimes, customers can get service from Cavalier if Cavalier escalates the
9 issue through Verizon. Over the past two and a half years, Cavalier has had some success
10 with that approach. Other customers have had success by filing a complaint with the
11 Virginia State Corporation Commission ("the SCC"). About 28 Virginia customers have
12 taken their concerns to the SCC, and seven of them eventually got Cavalier service. That
13 suggests to me that Verizon may be routinely rejecting orders that can actually be
14 provisioned over adequate and available Verizon facilities.

15 **Q. When Verizon says that there are "no facilities," is that answer reliable?**

16 A. Not to me. Cavalier and its customers cannot rely on a system that provides
17 facilities only to customers who complain the loudest. The situation casts in doubt the
18 accuracy of responses that Cavalier receives for large numbers of orders that were
19 rejected for these "no facilities" reasons.

20 **Q. Does Verizon respond that Cavalier can serve most of these customers over**
21 **spare copper or UDLC loops?**

22 A. Yes. However, as I already stated, UDLC is inadequate for customers who want
23 dial-up Internet access, which makes it unacceptable for a large number of customers.

1 Second, there are only a finite number of loops served by UDLC and spare copper. If
2 Cavalier's market share grows in any given area, spare copper and UDLC loops will run
3 out quickly. One neighbor may be able to get Cavalier's service by shifting from IDLC
4 to copper, but the next three neighbors might not have that option.

5 **Q. When Cavalier places an order, can it test Verizon's systems to see if a**
6 **customer really is blocked by an IDLC?**

7 A. No. Verizon uses its own Loop Facilities Assignment Controls ("LFACs")
8 system to evaluate the facilities available to provide service to a particular customer. To
9 date, Verizon has not provided Cavalier with effective access to that system.

10 **Q. Does Verizon have access to these tools when their customers place orders?**

11 A. Verizon does not need to know. Verizon itself does not run into IDLC, "no-
12 facilities" issues. It either serves a customer by traditional copper loop or by IDLC loop.
13 Either way, the Verizon customer gets service. That only highlights the discrimination
14 caused by Verizon's approach to this issue.

15 **Q. Does that conclude your testimony?**

16 A. Yes.

1 **Declaration of James Vermeulen**

2

3 I declare under penalty of perjury that I have reviewed the foregoing testimony and that
4 those sections as to which I testified are true and correct to the best of my knowledge.

5

6 Executed this 23rd day of September, 2003.

7

8

9

10

James Vermeulen

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Petition of Cavalier Telephone, LLC)	WC Docket No. 02-359
Pursuant to Section 252(e)(5) of the)	
Communications Act for Preemption)	
of the Jurisdiction of the Virginia State)	
Corporation Commission Regarding)	
Interconnection Disputes with Verizon)	
Virginia, Inc. and for Arbitration)	

**TESTIMONY OF MATTHEW R. ASHENDEN
ON BEHALF OF CAVALIER TELEPHONE, LLC**

CAVALIER EXHIBIT _____

September 23, 2003

1 **Q. Please state your name, business address, responsibilities, and professional**
2 **background.**

3 A. My name is Matthew R. Ashenden. My business address is 2134 West Laburnum
4 Avenue, Richmond, Virginia 23227-4342. As Director of Engineering for Cavalier
5 Telephone, LLC (“Cavalier”) for the past four years, I have been responsible for
6 overseeing the design and implementation of the Cavalier Telephone network. Before
7 joining Cavalier, I was a consultant for 3 years. Before that, I worked in the
8 telecommunications department at the company now known as Dominion Virginia Power
9 for thirteen years. I earned a Bachelor of Science degree in Electrical Engineering from
10 the West Virginia Institute of Technology.

11 **Q. What issues will your direct testimony address?**

12 A. It will address the issues designated as C10, C11, C16, and V25.

13 **Dark Fiber**

14 **Q. What changes does Cavalier propose in connection with Issue C10?**

15 A. Cavalier proposes a number of changes based on its experience with leasing dark
16 fiber from Verizon over the past few years. Those changes are intended to:

- 17 - add detail to Verizon’s use of the term “accessible terminal;”
- 18 - alleviate the uncertainty about whether or not dark fiber is “terminated;”
- 19 - establish a queue process for dark fiber requests, similar to the queue
20 process used by Verizon for collocation space; and
- 21 - require fiber maps similar to those provided by other dark fiber vendors;
- 22 - improve the field survey process.

23 **Q. What change does Cavalier propose for the term “accessible terminal?”**

1 A. Cavalier proposed changes to § 11.2.15.1 of the interconnection agreement
2 because of a concern with use of the term “accessible terminal” and Verizon’s
3 interpretation of when dark fiber would actually be available for use by Cavalier.
4 Cavalier may need to reevaluate some of this language in light of the recent decision by
5 the Federal Communications Commission (“the FCC”) in the *Triennial Review Order*.

6 **Q. What changes does Cavalier propose with respect to Verizon’s response to**
7 **dark fiber inquiries?**

8 A. Part of the language proposed by Cavalier reflects Verizon’s current practice. For
9 example, Verizon responds to dark fiber inquiries by advising Cavalier whether fiber
10 does not exist, exists but spares are not available, or exists and is available—responses
11 that are functionally equivalent to the first sentence of the new language proposed by
12 Cavalier at the end of § 11.2.15.4 of the interconnection agreement. The other, additional
13 detail requested by Cavalier is intended to provide sufficient information to allow
14 Cavalier to evaluate whether to continue pursuing dark fiber along certain routes, or to
15 shift its efforts to other routes. As stated, one aim of this language was to reduce
16 uncertainty about whether fiber is “terminated” and thus “available,” but the language is
17 also intended to provide sufficient information to make dark fiber inquiries a productive
18 process for both Verizon and Cavalier.

19 **Q. Why does Cavalier propose a queue process for dark fiber?**

20 A. The language proposed by Cavalier in § 11.2.15.4.1 is intended to reduce the
21 paperwork burden on Verizon and to eliminate a certain randomness in the dark fiber
22 inquiry process. For collocation applications, Verizon uses a queue to impose a “first
23 come, first served” order in how collocation space is provided to different competitive

1 local exchange carriers (“CLECs”). Cavalier proposes a similar arrangement for dark
2 fiber inquiries, so one CLEC does not receive dark fiber that another CLEC is pursuing
3 because of an accident in the timing of their respective dark fiber inquiries. Cavalier also
4 believes that its proposed queue process would reduce the burden on both Cavalier and
5 Verizon that exists under the current process, in which a CLEC like Cavalier must submit
6 repeated inquiries about the same dark fiber segment or segments. The time intervals
7 proposed by Cavalier are merely suggestions, and Cavalier is open to exploring any other
8 reasonable time intervals that might be more workable for Verizon.

9 **Q. Why does Cavalier want a different type of dark fiber map?**

10 A. Cavalier proposes a different type of dark fiber map under § 11.2.15.5(i) because
11 the current maps show only the street routes of dark fiber within an area served by a
12 single office, which is not useful information for inter-office fiber. It is the endpoints of
13 the dark fiber that are relevant, so Cavalier suggests that dark fiber maps should show
14 central office connectivity across a region, including where Verizon intends to add new
15 dark fiber in the near future. Also, Cavalier’s suggested map format is the same one used
16 by vendors of dark fiber other than Verizon, which should align Verizon’s practices with
17 those of typical vendors and make it easier to perform any relevant impairment analyses
18 under the FCC’s *Triennial Review Order*.

19 **Q. Why does Cavalier want to change the field survey process?**

20 A. Through its proposed changes to § 11.2.15.5(ii), Cavalier proposes to add
21 certainty to the cost of field surveys, and to make it a joint field survey rather than simply
22 a field survey performed by Verizon. The first change is needed because the cost of
23 performing a field survey is currently too open-ended, and that acts as a deterrent to

1 ordering any field surveys, which in turn limits the ability of Verizon and Cavalier to
2 verify Verizon's records and explore whether dark fiber is actually available. Cavalier
3 suggested the second change to limit the scope of potential disagreement between
4 Cavalier and Verizon, and to make the entire process of identifying and leasing dark fiber
5 more efficient by bringing engineers or technicians together in the field to assess the best
6 way to approach a dark fiber need. Cavalier and Verizon have had lengthy disagreements
7 in the past about the results of field surveys. For example, in one situation, Verizon
8 responded to a dark fiber inquiry by stating that fiber was available from the central
9 office to the pedestal, but not from the pedestal to a customer premises location, but then
10 gave the opposite response after a field survey. That type of conflict between records
11 review and a field survey naturally gives rise to questions by a CLEC like Cavalier, who
12 is simply trying to identify, locate, and use spare dark fiber. Allowing for a joint field
13 survey would provide Cavalier with on-site verification of the accuracy of Verizon's
14 survey, and would also allow Cavalier to timely pose any questions that it might have
15 about the dark fiber segment in question.

16 **Project Coordination**

17 **Q. What changes does Cavalier propose in connection with Issue C11?**

18 A. Cavalier proposes language for a new § 14.6 in the interconnection agreement,
19 superseding its prior proposal on this subject. Cavalier's new proposed language first
20 tracks the language in the new 47 C.F.R. § 51.316 created by the *Triennial Review Order*,
21 and adds a provision requiring good-faith negotiation with respect to applicable
22 timeframes.

1 **Q. Why is this new language needed?**

2 A. Cavalier has experienced problems with Verizon in moving customers from (a) an
3 exiting carrier's special access circuits purchased from Verizon to (b) Cavalier's own
4 network, including those portions of Cavalier's network that incorporate or interconnect
5 with unbundled network elements leased from Verizon.

6 **Q. What type of problems has Cavalier experienced?**

7 A. Most of these problems are described in Walt Cole's testimony on this subject,
8 but I was directly involved with the transition of Net2000 customers from Verizon
9 special access circuits to Cavalier's network. Cavalier initially submitted the Net2000
10 conversions as a special project, but Verizon disagreed. Cavalier started submitting
11 individual access service requests ("ASRs") for individual customers, as Verizon had
12 requested. After Cavalier submitted about 50 to 75 such orders, Verizon balked at the
13 volume. A number of Cavalier representatives then met with several Verizon
14 representatives in Herndon, Virginia to discuss coordination. However, Verizon's
15 engineer then notified me that he was halting the project because he had been advised to
16 do so by Verizon's lawyers. Cavalier and Verizon eventually worked out a type of batch
17 cut process involving the cutover of a very limited number of orders for a very limited
18 number of central offices (or wire centers) each night. Those cuts started in February or
19 March of 2002, and not in late November or early December 2001, as requested by
20 Cavalier. Because of the slow pace set by Verizon, these cutovers were not wrapped up
21 until late September or early October of 2002.

1 **Q. What changes does Cavalier propose to this process?**

2 A. Cavalier proposes incorporating the language from the *Triennial Review Order*, as
3 I mentioned. Cavalier also proposes language allowing the parties to negotiate a proper
4 time interval for completing conversions. Some definite timeframe is needed to complete
5 a conversion, because while the 2,400 Net2000 orders could not be completed in ten
6 days, it should not have taken seven months or more. Any smaller projects in the future,
7 like Cavalier's past efforts to convert over ATG, Adelphia, Stickdog, and PICUS
8 customers, would also benefit from a negotiated but definite timeframe. If Cavalier and
9 Verizon are able to agree on such a timeframe, then Cavalier's proposed language seeks
10 to provide for an expedited decision. Cavalier would expect that Staff of the Virginia
11 State Corporation Commission ("the SCC") would be able to assist in such a context.
12 Cavalier therefore proposes language allowing use of the ADRP process at the SCC or, if
13 the SCC were not willing to step in, the accelerated docket at the FCC.

14 **Pole Attachments**

15 **Q. What changes does Cavalier propose in connection with Issue C16?**

16 A. Cavalier proposes much the same changes that it proposed in a Delaware
17 interconnection arbitration earlier this year. For that reason, my testimony will track the
18 testimony offered in that proceeding by Cavalier's Jim Vermeulen.

19 **Q. What is the overall thrust of those changes?**

20 A. Cavalier proposes to add a new § 16.2 to the interconnection agreement, to add
21 new procedures to the permitting and attachment process. To attach fiber-optic cable to
22 the utility poles owned by power companies, Verizon, and municipalities, Cavalier must
23 follow a permitting process to ensure that basic engineering and safety concerns are met.

1 However, the current process is riddled with problems, including unnecessary delays,
2 added costs, and redundant processes. Cavalier has proposed a unified process that
3 makes sense, in terms of both the initial engineering work, and the “make-ready” work
4 required to prepare the pole for an additional attachment.

5 **Q. What are the problems with the current way of performing engineering work**
6 **on poles?**

7 A. Under current arrangements, each entity with fiber or other equipment attached to
8 a pole is allowed to “engineer” the pole with respect to the new attachment. In practice,
9 that means that the power company sends out a field survey team, Verizon sends out the
10 same type of team, the local cable television company sends out the same type of team,
11 and one or more competitive local exchange carriers may also send out the same type of
12 team. What that means is that each of these parties is sending out its own people to do
13 the same ostensible work—to make sure that adequate clearances can be maintained with
14 the new attachment, and perhaps to see if a new pole is needed or if existing facilities
15 must be rearranged to accommodate the new attachment. Often, parties will use a third-
16 party engineering firm to complete this effort rather than their own workforce. The
17 practical upshot is that the power company and Verizon and cable television all send
18 Cavalier bills for their own “engineering work.” Cavalier may also get bills from other
19 parties with fiber or other attachments on the poles, sometimes without ever having
20 agreed to any such “engineering” work by other attachers. Also, this work is typically
21 performed in sequence, so Cavalier must wait for three or more rounds of field surveys
22 to wend their way to completion. The net result is unnecessary expense and delay.

1 Cavalier has therefore proposed a revised permitting process that will allow a single,
2 third-party engineering firm to perform this work in most or all circumstances.

3 **Q. Why is work by third-party contractors important?**

4 A. All or nearly all of the entities with attachments on utility poles—including
5 Verizon, the electric utilities, and competitive local exchange carriers like Cavalier—rely
6 on contractors to perform at least some of the work on those pole attachments. The work
7 is too sporadic for any one utility to maintain a full-time staff that is fully occupied yet
8 always ready to respond to upward spikes in the amount of work that needs to be
9 performed. *Even though all of these entities rely on contractors to perform at least some*
10 *of their pole attachment work, Verizon refuses to allow Cavalier to employ third-party*
11 *contractors to do a single sweep through a stretch of poles, moving all attachments by the*
12 *necessary amount. Instead, Verizon insists upon allowing its own personnel or its own*
13 *designated contractor to perform any make-ready work needed to move or adjust*
14 *Verizon's attachment on its own poles or on the poles of other parties like electric*
15 *utilities. This issue also came up between Cavalier and an electric utility. Even when*
16 *Cavalier was able to work out a workable procedure with the electric utility, and all of the*
17 *other entities that were involved appeared ready to accept this improved procedure,*
18 *Verizon was the lone hold-out and prevented implementation of an improved procedure.*

19 **Q. What are the problems with the current methods of performing “make-
20 ready” work on poles?**

21 A. To a great extent, the problems with “make-ready” work parallel the problems
22 with engineering work. However, since make-ready work typically involves the
23 rearrangement of other attachers' fiber or other equipment, other attachers are even more

1 interested in making sure that the work is performed properly. Therefore, each attacher
2 sends out a separate team of workers to move its attachments. This work is also
3 performed in sequence , which takes a lot of time, and delays new attachments.
4 Moreover, because each of these attachers typically has an agreement only with the pole
5 owner, and is often a competitor of Cavalier, the other attachers typically have every
6 incentive to delay the process, while Cavalier has no means whatsoever to make the
7 process move forward any more expeditiously. The final inspection step that follows the
8 make ready process is also cumbersome in that each entity performs their version of an
9 inspection as time permits. Further, because these processes involve the redundant
10 performance of virtually identical work by different parties, multiple and unnecessary
11 layers of expense are added. These issues drive up the cost of building a fiber-optic
12 network, without any appreciable gains.

13 **Q. Would you please provide an example of how this make-ready process**
14 **works?**

15 A. Yes. Consider a situation where the power company has lines attached at the top
16 of its own pole (but is attached in a manner that requires some rearrangement, such as
17 changing to triplex wire), Verizon's cable is the lowest attachment , with cable television
18 and two other telephone competitors' fibers at one foot increments (respectively) above
19 Verizon's attachment. (Verizon is often attached at the lowest point, a situation
20 mandated by legacy "joint use" agreements between telephone and power companies,
21 which can date back 30 years or more to the days of telephone monopoly.). Add the
22 typical requirement that the newest attacher must occupy the highest position on the pole
23 between the existing attachers and the power attachments. While spacing between

1 Verizon and the other attachers were proper, the whole set can to be lowered to allow for
2 the new attachment, and still meet the code requirements regarding clearance down to the
3 ground and clearance up to the power. The existing attachers and/or Verizon could agree
4 to a six-inch clearance for Cavalier's new attachment, but that has never happened in
5 practice. Therefore, the power crew comes out and performs its make-ready work to
6 tighten or move things upward, and charges Cavalier for it. Verizon sends out a crew to
7 move its cable or fiber down one foot, and charges Cavalier for it. The cable television
8 company sends out a crew to move its cable or fiber down one foot, and charges Cavalier
9 for it. Then each competitor sends out a crew to move each of their attachments down
10 one foot, and each charges Cavalier for it. At the end of the day, Cavalier is left with
11 bills from the power company, cable company, and two competitors. What does Cavalier
12 receive in exchange? Cavalier is exposed to delay, uncertainty, and extra cost, all so
13 different crews (perhaps from the same third-party contractor) can each come out to
14 move a cable down a foot, with the power company perhaps performing some slightly
15 less basic make-ready adjustments.

16 **Q. What does Cavalier propose as a replacement for this process?**

17 A. Cavalier proposes a unitary engineering and make-ready process, in which a
18 single engineering firm and a single third-party contractor perform the engineering and
19 make-ready work needed to accommodate new pole attachments. This solution has
20 certain safeguards built into it, such as Cavalier's indemnification of Verizon, and the
21 selection of mutually agreeable contractors to perform the actual work. (In most cases,
22 Cavalier expects that a single contractor already performs such work, perhaps at different
23 times and locations, for all of the parties who would be involved.) This solution

1 eliminates redundant visits to poles, decreases the cost of adding network capacity, and
2 better serves the public interest. Finally, this solution does not ignore any applicable
3 safety and engineering requirements, but instead incorporates the National Electrical
4 Safety Code (NESC) requirements, National Electric Code (NEC) requirements, and
5 applicable BellCore Blue Book specifications. The Blue Book, and these other
6 requirements, have been used by Verizon and its predecessor entities for decades.

7 **Q. Does the FCC affirmatively require such a process?**

8 A. No. To date, in a case brought by Cavalier against Virginia Electric and Power
9 Company in late 1999, the FCC required a pole owner to coordinate make-ready work
10 and decrease the inefficiencies described above. The FCC stopped short of affirmatively
11 requiring a unitary make-ready process, but it did indicate that such a process would
12 probably be more efficient, and it left the door open for an actual affirmative requirement
13 of such a process down the road. In the aftermath of an enforcement action that Cavalier
14 brought in federal district court in early 2001, all parties except Verizon reached
15 agreement on such a unitary process. In fact, such a process has been followed with pole
16 attachments in eastern Virginia, where Verizon's poles were not involved. Verizon has
17 been the only real obstacle to such a process in Virginia.

18 **Subloops for Multiunit Premises**

19 **Q. What changes does Cavalier propose with respect to subloops for multiunit**
20 **premises, referred to in the interconnection agreement as on-premises wiring or**
21 **inside wire subloops?**

1 A. Cavalier proposes no changes to the Virginia interconnection agreement arbitrated
2 between Verizon and AT&T. Cavalier wishes to retain that language and believes that
3 Verizon should demonstrate why any changes are needed to that language.

4 **Q. Why does Cavalier want to retain the language from the interconnection**
5 **agreement between AT&T and Verizon?**

6 A. Cavalier has virtually no experience leasing unbundled subloops for multiunit
7 premises from Verizon, but the AT&T language has five pages of what appears to be
8 helpful detail that would provide more guidance on how the parties would deal with any
9 such orders than the single, generic paragraph proposed by Verizon.

10 **Q. Does that conclude your testimony?**

11 A. Yes.